

LIVESTOCK NEWSLETTER

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May & June, 2001

Dates To Remember

Northwest Florida Cotton Scout School.....	June 5, 2001
Jay Community Center, Jay, Florida	
Gulf Coast Turfgrass Expo & Field Day	June 20, 2001
West Florida Research and Education Center, Jay, Florida	
The 2001 Peanut Field Day	August 21, 2001
North Florida Research and Education Center, Highway, 71 Marianna	8:00 AM
(For more information call 675-3107)	

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COTTON

Glyphosate Products For Cotton

Many formulations of glyphosate are now available for use in cotton. With the vast number of products to choose from, use patterns, rates, and adjuvant recommendations have become complex. As always read and follow the latest label recommendations.

Special thanks to Dr. Alan York of NC State University for help in preparation of this section.

Should I Wait Until 4-Leaf Roundup Ready Cotton Before Applying Glyphosate (Roundup, Others)?

Often, the most critical time frame for a cotton field to be maintained as weed free as is feasible is the first six weeks of cotton development. However, with the release of Roundup Ready cotton, many fields are now heavily infested with weeds for several weeks during the first six weeks of cotton growth. Although most of these weeds can be controlled by a glyphosate application, potential yield loss due to early-season weed competition is a concern. The weeds present, their densities, the length of weed competition with cotton, and environmental conditions all play a role in the potential yield loss from weed competition during this critical time period.

When a dinitroaniline herbicide (Pendimax, Prowl, Treflan, etc.), Cotoran, or Staple is applied at planting, the glyphosate application can be delayed until the 4-leaf stage of cotton development in MOST situations. However, if the soil-applied herbicide is not effective (due to weather or application method) or when a grower chooses not to use a soil-applied herbicide, early-season weed competition reduces cotton yield in approximately 50% of our fields when the glyphosate application is delayed until the 4-leaf stage of cotton based on research across the Southeast. This yield loss occurs even in situations where all weeds are controlled completely from the 4-leaf stage until harvest as the cotton never recovers from weed competition occurring between emergence and the glyphosate application at the 4-leaf stage of cotton.

Thus, data suggest that in situations where no soil-applied herbicide is used or when the soil-applied herbicide is ineffective, then two postemergence over-the-top applications of glyphosate may be needed. Remember, when making two over-the-top applications of glyphosate, there must be two nodes of cotton growth and 10 days separating the applications with both being administered prior to the 5th leaf of cotton being the size of a quarter. (Georgia Cotton, 4/25/01)

Insect Situation

Grasshoppers are numerous in many strip-till cotton fields and have caused damage requiring treatment in some. We're also seeing a lot of adult thrips in cotton. During windy periods it is not uncommon to find counts of adult thrips that exceed the threshold of 2 thrips per plant, even though the at-plant insecticide is working well. This can occur because winds blow thrips in from surrounding vegetation and cause continual reinfestation. Such fields may not necessarily need a supplemental foliar treatment. However, the presence of significant numbers of immature thrips (wingless and usually light yellow or straw colored) is an indication that the at-plant insecticide is not working well. Supplemental treatment is recommended if thrips counts (immatures + adults) exceed threshold and cotton is still in a susceptible growth stage. Cotton plants normally become relatively safe from thrips injury once they reach the four-leaf stage and are growing vigorously.

Cotton Square Retention

Recent work at the University of Georgia shows that in South Georgia with the full-season Bollgard variety, Delta Pine 33, removal of 50% or 100% of the squares during the first, second, and third weeks of bloom had no effect on final yield. This research and similar work in California shows that when sufficient degree days are available to accumulate yield, and the variety has the capacity for compensatory square set, incurring high costs to maintain *retention above the 60-70% level* is very likely a waste of resources. (Cotton Incorporated, State Support Newsletter- 1st Quarter, 2001)

UF/IFAS Publications

The following UF/IFAS publications have been recently *UPDATED* and are available through the Extension office.

SSAGR11 Weed Management in Transgenic, Herbicide-Resistant Soybeans

SSAGR13 Weed Management in Transgenic, Herbicide-Resistant Cotton

SSAGR102 Calibration of Herbicide Applicators

ENY400 Insect Monitoring and Management in Cotton

The following *NEW* publications are also available.

SSAGR159 Perennial Peanut-Source List of Planting Material (Rhizomes) and Hay

SSAGR160 Variety and Other Trials of Several Forage Grasses and Legumes, Temperate Corn and Grain Sorghum

SSAGR161 Forage Planting and Establishment Methods

SSAGR162 Results of 2000 Short-, Mid-, and Full-Season Irrigated Corn Variety Tests in Florida

SSAGR163 Results of 2000 Early and Late Season Cotton Variety Tests in Florida

You can also find these publications on-line at <http://edis.ifas.ufl.edu/>. Once the screen fully loads, find the box that says Integrated Database Search Engine. Type in the publication number (example: SSAGR01) or Keyword (example: Bahiagrass). Click on the appropriate button below (Find Keywords or Find Publication No.). You will get a listing of publications. Please be sure to check the date in the footnote on the first page to be sure it is the most up-to-date publication for that topic.

PEANUTS

Resistant Varieties

Some varieties have intermediate levels of resistance to diseases. Where resistance to leaf spot exists, fewer applications of fungicides may be used. Large seeded peanut varieties require higher levels of calcium in the pegging zone because they are more susceptible to some pod-rotting

fungi. Table 1 provides a summary of some varieties with their reactions to some diseases.

Table 1, Reactions of Peanut Varieties to Different Diseases

	Disease							
Variety*	Early leaf spot	Late leaf spot	CBR	White Mold	Tomato spotted wilt virus	Aflatoxin	Rust	Limb rot
Florunner	-	-	-	-	-	+/-	-	-
Virugard	-	-	-	-	+	-	-	-
Sunrunner	-	-	-	-	-	-	-	-
Marc 1*	-	-	-	-	-	-	-	-
Andru 93	-	-	-	-	-	-	-	-
Southern Runner	-	+	+	+	+	+/-	+	-
GK7	-	-	-	-	+/-	-	-	-
Georgia Runner	-	-	-	-	-	-	-	-
Georgia Green	-	-	+	+/-	+	-	-	+/-
Georgia Bold	-	-	-	-	+/-	-	-	-
C-99R	-	+	+/-	+	++	-	+	-
Gregory	-	-	+/-	?	+	-	?	-
Sun Oleic 95R	-	-	-	-	highly susceptible	-	-	-
Sun Oleic 97R	-	-	-	-	-	+/-	-	-
AT 108	-	-	-	-	-	-	-	-
AT 120	-	-	-	-	-	-	-	-
NC 7	+/-	-	-	-	+/-	-	-	-
NC 9	-	-	-	+/-	+/-	-	-	-
NC-VII	-	-	-	+/-	+/-	-	-	-
NC 12C	-	-	+	-	+/-	-	-	-
Florida MDR98	-	+	-	+	+	-	+	-
Florigiant*	-	-	-	-	-	-	-	-

AT 1-1	-	-	-	-	+/-	-	-	-
AT 201	-	-	-	-	+	-	-	-
VC 1	-	-	-	-	+/-	-	-	-
Coan	-	-	-	-	highly susceptible	-	-	-
Large seeded varieties tend to be more susceptible to some pod-rotting fungi. Also, some Virginia-type peanuts are quite susceptible to leaf spot. The variety Coan has resistance to root knot nematode.								

*Seed no longer available
 ++Highly resistant
 + Some resistance
 - No known resistance
 +/-May have some resistance if disease pressure is not high
 S Susceptible

Fungicide Effectiveness

Table 2. General summary of effectiveness of some foliar fungicides against various diseases.

Disease	Abound	Chlorothalonil	Copper fungicides	Mancozeb	Benlate	Folicur	Moncut	Rovral
White Mold	++	-	-	-	-	++	++	-
CBR	-	-	-	-	+	+	-	-
Limb Rot	+	+	-	-/+	+	+	+	+
Crown rot (A. niger)	?	-	-	-	++	+	-	-
Diplodia crown rot	?	-	-	-	+	-	-	-
Rhizoctonia pod rot	+	-	-	-	+	+	+	+
Phthium root & pod rot	?	-	-	-	-	-	-	-
Leaf spot ¹	+	++	+	+	+/-	++	-	-
Rust ¹	+	++	-	++	-	++	-	-

¹ Sulfur will suppress leaf spot and rust.

A. Initiation of Spray Program For Leaf Spot Without Use of Forecasting.--At the present time, no specific date can be given to start a spray program. However, certain guidelines should be helpful. Also, see **Plant Protection Pointer No. 19** for determining the level of leaf spot in your field as it relates to yield.

1. Beginning at 30 days after planting or when night temperatures become 65°F or more,

periodically walk through a representative portion of your peanut fields looking for a trace amount of peanut leaf spot. *Early detection in conjunction with early spraying will make subsequent fungicide applications more effective.* Greater specificity on this point are presented in footnote 1 of Table 2.

2. Leaf spot will appear earlier when peanuts are not rotated with other crops. Double cropping is not considered an adequate rotation time interval.
3. Dry weather will retard leaf spot development. Conversely, wet weather aids leaf spot development.
4. Where a large acreage is involved and the fungicide is applied by ground equipment, begin your spray program early enough so that the entire acreage has been sprayed before leaf spot begins on the last part of the acreage sprayed. This is a judgement decision on your part based on your own past experience for those fields involved.
5. Peanuts planted prior to mid April will be exposed for a shorter period of time to leaf spot-favorable weather than peanuts planted at later dates (assuming the same age at harvest).
6. Peanut fields or those portions of a field next to a field planted in peanuts the previous year should be sprayed by the time they are 35 days old. It is common to see leaf spot begin on edges of fields next to a previous years' crop.

Control of *Cylindrocladium Black Rot (CBR)*

At the present time, CBR is difficult to control. The varieties NC 12C, Southern Runner, Georgia Green, and FL MDR 98 have small levels of resistance to CBR. (C-99R may have some resistance, but we would like more field information to be sure.) Preplant fumigation with metam sodium-containing products (Vapam) or chloropicrin has been used somewhat successfully in North Carolina, Virginia, and Georgia.

CBR has been suppressed in field tests with sprays of **Benlate 50WP** or **Folicur 3.6F**. Three or four sprays of either product, spaced 14 days apart, beginning when the peanuts are 45 days old, have reduced CBR. The spray program with **Folicur 3.6F** for suppression of white mold would be advantageous for suppression of CBR.

DOLLAR RETURN; PEANUTS

Table 1. Monetary returns over unsprayed peanuts with fungicidal control of leaf spot and rust in Florida in 1998, 1999, and 2000.*

Fungicide Spray Program & Rate/A; () = Tank Mix	Spray Dates () = Tank Mix	Year	Variety	Pounds/A Increased	Fungicide Cost (\$) **	\$ Return/\$1 Spent ***
		1998	Florunner	1747 act.	-----	-----
		1999	Georgia Green	2972 act.	-----	-----
		2000	Florunner	2373 act.	-----	-----



		2000	Georgia Green	3730 act.	-----	-----
		1998	Florunner	1965	56.78	10.01

		1999	Georgia Green	1252	56.78	6.01
		2000	Florunner	1974	56.78	10.05
		2000	Georgia Green	1461	56.78	7.18
Bravo Ultrex @ 1.4# Abound 9.2 @ 9.2 fl oz Folicur @ 4.8 fl oz	1 6 2 4 3 5	1998	Florunner	2573	68.43	10.84
		1999	Georgia Green	2042	68.43	8.23
		2000	Florunner	2137	68.43	8.84
		2000	Georgia Green	1801	68.43	7.29
Bravo Ultrex @ 1.4# Abound @ 9.2 fl oz Folicur @ 7.2 fl oz	1 6 2 4 3 5	1998	Florunner	2768	78.85	10.06
		1999	Georgia Green	2305	78.85	8.21
		2000	Florunner	2346	78.85	8.37
		2000	Georgia Green	1937	78.85	6.74
Bravo Ultrex @ 1.4# (Abound @ 6.1 fl oz + Folicur @ 4.8 fl oz)	1 6 (2 4 3 5)	1998	Florunner	2981	98.88	8.51
		1999	Georgia Green	1829	98.88	4.84
		2000	Florunner	2378	98.88	6.57
		2000	Georgia Green	1611	98.88	4.13
Bravo Ultrex @ 1.4# Folicur @ 7.2 fl oz	1 6 2,3,4,5,	1998	Florunner	2432	73.66	9.41
		1999	Georgia Green	1352	73.66	4.78
		2000	Florunner	2133	73.66	8.12
		2000	Georgia Green	1488	73.66	5.36
Fungicide Spray Program & Rate/A; () = Tank Mix	Spray Dates () = Tank Mix	Year	Variety	Pounds/A Increased	Fungicide Cost (\$)	\$ Return/\$1 Spent
Bravo Ultrex @ 1.4# (Folicur @ 4.8 fl oz + Dithane DF @ 1#)	1, 6 (2,3,4,5),	1999	Georgia Green	1738	64.64	7.47
		2000	Georgia Green	1894	64.64	8.23

*Randomized complete block, field tests with four replications were conducted in Alachua County at the Green Acres farm (U.F.). These tests were conducted by *Tom Kucharek* and *Chuck Semer* of the Plant Pathology Dept., Univ. of Florida.

**1999 fungicide prices used.

***To determine gross receipts for a treatment, \$630/ton was used for all treatments.

Table 2. Monetary returns over unsprayed peanuts with fungicidal control of white mold in Florida in 1998, 1999, and 2000.*

Fungicide Spray Program & Rate/A	Spray Dates	Year	Variety	Pounds/A Increased	Fungicide Cost (\$)**	\$ Return/\$1 Spent ***
Untreated	-----	1998	Florunner	2076 <i>act.</i>	-----	-----
		1999	Georgia Green	3405 <i>act.</i>	-----	-----
		2000	Florunnner	3891 <i>act.</i>	-----	-----

		2000	Georgia Green	4182 act.	-----	-----
Folicur @ 7.2 fl oz	2,3,4,5	1998	Florunner	1623	54.91	8.31
		1999	Georgia Green	515	54.91	1.96
		2000	Florunner	262	54.91	0.50
		2000	Georgia Green	424	54.91	1.45
Abound @ 12.3 fl oz Folicur @ 7.2 fl oz	2 4 3 5	1998	Florunner	1888	71.11	7.36
		1999	Georgia Green	799	71.11	2.54
		2000	Florunner	650	71.11	1.88
		2000	Georgia Green	679	71.11	2.01
Abound 18.4 fl oz	2 4	1998	Florunner	1169	65.68	4.61
		1999	Georgia Green	334	65.68	0.61

*Randomized complete block, field tests with five replications were conducted in Alachua County at the Green Acres farm (U.F.). These tests were conducted by *Tom Kucharek* and *Chuck Semer* of the Plant Pathology Dept., Univ. of Florida.

**1999 fungicide prices used.

***To determine gross receipts for a treatment, \$630/ton was used for all treatments.

The use of trade names in this publication is solely for the purpose of providing specific information. It is not a guarantee, warranty, or endorsement of the product names and does not signify that they are approved to the exclusion of others.

Extension programs are open to all people without regard to race, color, sex, or national origin.

Sincerely,

Mike Donahoe
Extension Director
Santa Rosa County

John Atkins
Extension Agent
Santa Rosa County